

Claims

- [c1] 1. A stir-frying apparatus, said stir-frying apparatus comprising:
- a container having an open top for holding foods;
 - a lid covering on top of said container for closing up said open top of said container;
 - a bottom heating device disposed underneath said container for heating foods disposed inside said container;
 - an over-head heating device disposed at an upper position of said stir-frying apparatus for heating foods disposed inside said container;
 - a stirring device installed inside said container on the bottom for stirring foods disposed inside said container;
 - and
 - a power-drive assembly operationally coupled with said stirring device for driving said stirring device through repeating stirring cycles.
- [c2] 2. A stir-frying apparatus as defined in claim 1, wherein said container has a central bottom shaft aperture, wherein said power-drive assembly is disposed under said container and includes an drive shaft threaded through said central bottom shaft aperture, and said

stir-frying apparatus further including a seal device for sealing between the bottom of said container and said drive shaft.

- [c3] 3. A stir-frying apparatus as defined in claim 1, said stir-frying apparatus further including a housing for heat insulation of said stir-frying apparatus and for adapting said stir-frying apparatus to stand on a flat surface, wherein said lid is hingedly installed at an upper position of said housing, and wherein said overhead heating device is installed on said lid.
- [c4] 4. A stir-frying apparatus as defined in claim 1, wherein said container includes a grasp handle hingedly installed at an upper position of said container.
- [c5] 5. A stir-frying apparatus as defined in claim 2, said stir-frying apparatus further including a coupling device for operationally coupling said power-drive assembly and said stirring device and wherein said coupling device includes a coupling element for releasably receiving said drive shaft.
- [c6] 6. A stir-frying apparatus as defined in claim 2, wherein said seal device is installed inside said container, so as to emanate upwards to a predetermined height, such that for most applications of said stir-frying apparatus

said seal device is above hot liquids, whereby the requirement on said seal device is significantly reduced.

- [c7] 7. A stir-frying apparatus as defined in claim 1, wherein said over-head heating device is installed on said lid.
- [c8] 8. A stir-frying apparatus as defined in claim 1, wherein said over-head heating device includes an electrical resistance heat-generating element.
- [c9] 9. A stir-frying apparatus as defined in claim 1, wherein said over-head heating device includes a high intensity infrared heat-generating element.
- [c10] 10. A stir-frying apparatus as defined in claim 1, wherein said over-head heating device includes a infrared-transparent covering piece for protecting said over-head heating device against liquid splattering.
- [c11] 11. A stir-frying apparatus as defined in claim 1, said stir-frying apparatus further including a control device for automatically de-energizing said power-drive assembly near the end of each stirring cycle for a predetermined dwell period.
- [c12] 12. A stir-frying apparatus as defined in claim 11, wherein said control device includes a switch circuit for de-energizing and energizing said power-drive assem-

bly and a timing circuit to determine said predetermined dwell period.

- [c13] 13. A stir-frying apparatus as defined in claim 1, said stir-frying apparatus further including a blowing device for forcing fresh air into said stir-frying apparatus during a frying process, thereby facilitating moisture removal from inside said stir-frying apparatus.
- [c14] 14. A stir-frying apparatus as defined in claim 13, wherein said blowing device includes fan means, a blowing motor for driving said fan means, and a one-way valve for preventing cooking fumes from escaping therethrough.
- [c15] 15. A stir-frying apparatus as defined in claim 13, said stir-frying apparatus further including control means, said control means dividing the blowing operation of said blowing device into repeating blowing cycles of predetermined length and automatically de-energizing said blowing device near the end of each blowing cycle for a predetermined period of time.
- [c16] 16. A stir-frying apparatus as defined in claim 1, wherein said stir-frying apparatus further including a venting device for exhausting cooking fumes.
- [c17] 17. A stir-frying apparatus as defined in claim 16,

wherein said venting device includes filter means for cooking fume treatment.

- [c18] 18. A stir-frying apparatus as defined in claim 1, said stir-frying apparatus further including an ingredient adding conduit disposed on said lid for use of adding ingredients during a frying process and wherein said ingredient adding conduit includes a cap for closing said ingredient adding conduit when said ingredient adding conduit is not in use.
- [c19] 19. A stir-frying apparatus as defined in claim 1, said stir-frying apparatus further including a basket having an open top and a central aperture on the bottom thereof for use to deep-fry foods.
- [c20] 20. A stir-frying apparatus, said stir-frying apparatus comprising:
- a container having an open top for holding foods;
 - a lid covering on top of said container for closing up said open top of said container;
 - a bottom heating device disposed underneath said container for heating foods disposed inside said container;
 - an over-head heating device disposed at an upper position of said stir-frying apparatus for heating foods disposed inside said container;
 - a stirring device installed inside said container for stir-

ring foods disposed inside said container;
a power-drive assembly operationally coupled with said stirring device for driving said stirring device through repeating stirring cycles;
a blowing device for forcing fresh air into said stir-frying apparatus during a frying process, thereby facilitating moisture removal from inside said stir-frying apparatus;
and
a venting device for exhausting and treating cooking fumes.

[c21] 21. A stir-frying apparatus as defined in claim 20, said stir-frying apparatus further including a control device for automatically de-energizing said power-drive assembly near the end of each stirring cycle for a predetermined dwell period.

[c22] 22. A stir-frying apparatus as defined in claim 20, said stir-frying apparatus further including an ingredient adding conduit disposed on said lid for use of adding ingredients during a frying process and wherein said ingredient adding conduit includes a cap for closing said ingredient adding conduit when said ingredient adding conduit is not in use.

[c23] 23. A stir-frying apparatus as defined in claim 20, wherein said container includes a grasp handle hingedly

installed at an upper position of said container.

[c24] 24. A stir-frying apparatus as defined in claim 20, said stir-frying apparatus further including a housing for heat insulation of said stir-frying apparatus and for adapting said stir-frying apparatus to stand on a flat surface, wherein said lid is hingedly installed on said housing, and wherein said overhead heating device is installed on said lid.

[c25] 25. A stir-frying apparatus as defined in claim 20, wherein said container has a central bottom shaft aperture, wherein said power-drive assembly is disposed under said container and includes a drive shaft threaded through said central bottom shaft aperture, and said stir-frying apparatus further including a seal device for sealing between the bottom of said container and said drive shaft.